

Cutting through Complexity: Strategic Options for Designing a B2B Innovation Platform

Manuel Wlcek
University of St. Gallen
manuel.wlcek@unisg.ch

Sven Jung
University of St. Gallen
sven.jung@unisg.ch

Felix Wortmann
University of St. Gallen
felix.wortmann@unisg.ch

Abstract

Designing and establishing a B2B platform business challenges many company executives and managers. Incentuated by the potential benefits and business opportunities, numerous B2B companies commit to this strategic venture. However, real-world showcases that most B2B companies fail with their platform endeavors. To help company executives and managers navigate the challenges and obstacles of designing B2B innovation platforms more effectively, we highlight seven strategic options and possible solutions to lean on. We base our findings on interviews, discussions, and workshops with C-level executives and managers from three incumbents that successfully established a B2B innovation platform. By following our strategic options and possible solutions, practitioners can cut through the complexity of designing and operating B2B innovation platforms to establish new business from scratch.

Keywords: Platforms, B2B, Strategic options, Management best practices, Platformization.

1. Platform business at incumbent companies

Over the last decades, the value creation of B2B companies shifted significantly from standalone and company-focused value creation towards shared, and in essence, multilateral value creation that includes multiple partners (Adner, 2017; Hein, Weking, et al., 2019; Jacobides, 2022; Jacobides et al., 2018; Stonig et al., 2022). Consequently, well-established, linear value chains broke up, allowing new entrants to enter previously elusive markets. Hereby, especially technology-driven incumbent companies possess the resources, customers, and partners to realize multilateral shared value creation leveraging innovation platforms that promote the emergence of ecosystems (Adner, 2021; Gawer & Cusumano, 2014).

Innovation platforms facilitate shared value creation as they enable complementary innovation by third parties (e.g., applications) on top of the technological core of a platform (e.g., the operating

system) (Cusumano et al., 2019; Gawer, 2021). B2B incumbent companies such as Siemens, General Electric, Bosch, SAP, or IBM, all embarked on establishing innovation platforms adjacent to their core business aiming to orchestrate the emerging ecosystem (Essen et al., 2023). However, most of the invested incumbent companies faced the pitfalls of B2B platform business and failed to reap the expected business opportunities (Gawer & Phillips, 2013; Pidun et al., 2020; Van Alstyne et al., 2016).

Overall, there is an extensive body of research and common consensus over fundamental aspects of platform business, such as two-sided markets (Eisenmann et al., 2006), network effects (Koh & Fichman, 2014), and complementary value creation (Huber et al., 2017). Many researchers identified pitfalls and common reasons for failure, deriving valuable lessons learned (Fuller et al., 2019; Van Alstyne et al., 2016; Zhu & Furr, 2016). Though, unlike other strategic imperatives such as digital (Hess et al., 2016) or AI transformation (van Giffen & Ludwig, 2023), little strategic guidance is offered to company executives and managers when designing B2B innovation platforms. Furthermore, research lacks clear strategic imperatives and systematic guidelines advising incumbent companies that pursue the design of a B2B innovation platform (Hein, Schrieck, et al., 2019; Pundziene et al., 2022). Hence, we investigate: *What are the key strategic choices for designing a B2B innovation platform?*

This article consequently aims to provide guidelines and highlight key questions company executives and managers must ask themselves when designing a B2B innovation platform. To derive such findings, we investigated three exemplary case companies in the process of establishing a B2B innovation platform. Hence, we were able to derive strategic options and possible solutions for designing a B2B innovation platform based on successful real-world examples.

2. Two types of platforms

Platform research differentiates two types of platforms: transaction and innovation platforms

(Cusumano et al., 2019). The first type, transaction platforms, also referred to as marketplaces, bring two or more market sides together to facilitate transactions between the respective sides. Well-known B2B examples of transaction platforms are Alibaba, CheMondis, or XOM Materials (Cusumano et al., 2019; Gawer, 2021).

On the other hand, innovation platforms focus on enabling innovation. Prominent examples of B2B innovation platforms are Siemens MindSphere, Intel CPU, or General Electric Predix (Cusumano et al., 2019; Gawer, 2021). They provide the underlying technological foundation, e.g., an operating system, for third parties to provide complementary products and services on top of the platform (Cusumano et al., 2019; Gawer, 2021). Typically, innovation platforms are more complex and challenging than transaction platforms. For instance, they need to provide and manage the underlying technological foundation successfully, e.g., the operating system that third-party developers build upon (Foerderer et al., 2019; Gawer, 2021).

3. Overview of case companies

Foundational for providing managerial contributions in the form of strategic options and possible solutions for designing B2B innovation platforms are our three incumbent cases within the industrial technology, engineering and technology, as well as building technology industry. All three incumbent cases ventured into designing a B2B innovation platform aiming to realize potential benefits resulting from orchestrating the emerging ecosystem. In the following, we refer to these B2B innovation platforms as *FactoryInc*, *MedicineInc*, and *SecurityInc* (all pseudonyms). See Table 1 for a compact presentation of the incumbent case companies and a more nuanced overview of the B2B innovation platforms (i.e., automation platform, medical test platform, security platform).

FactoryInc is an incumbent incorporated legal entity with around 400 employees specializing in industry automation. It operates in more than 20 industries and owns subsidiaries in eight countries across the globe. The B2B innovation platform (i.e., a software-based automation platform) incorporates services and interfaces (APIs, SDKs) on all archetypical Industrial Internet of Things (IIoT) software stack layers (i.e., edge, cloud, and application layer) (Fleisch, 2010; Porter & Heppelmann, 2014). The platform as of today involves more than 70 partners (i.e., complementors) provisioning complementary applications (e.g., machine modelling, low-code services, time series databases).

MedicineInc is a legally separated corporate entity with around 250 employees dedicated to developing advanced medical equipment. It primarily operates out of Europe but has R&D subsidiaries in India. The company's B2B innovation platform is rather a hardware platform with a significant software stack built in. Medical tests for various diseases (the 'apps') can be developed (with SDKs) and used on the basis of a test platform that includes different testing devices (the 'smartphones'). *MedicineInc's* partners engage on the B2B innovation platform, contributing products and services like biomaterials, medical tests, or logistics.

SecurityInc is a legally separated own entity with more than 100 employees delivering a smart security and safety platform. It operates development hubs in three countries in Europe and the US. Their B2B innovation platform is based on an open camera operating system accessible to third party camera manufacturers. Today, *SecurityInc* engages more than 50 partners on their platform (i.e., an app store for security apps) contributing over 100 applications.

Each incumbent case company achieved considerable economic success by leveraging its B2B innovation platforms. Furthermore, the relatively young B2B innovation platform history (for all company cases < ten years) promotes the upside potential of well-grounded and executed managerial decisions. Thus, the chosen company cases provide profound insights into managerial decisions and subsequent strategy execution, making the company cases well-fitting to derive strategic options and possible solutions to cut through the complexity of designing a B2B innovation platform.

4. Strategic options for designing B2B innovation platforms

Each presented company case incorporates valuable lessons for designing a B2B innovation platform. In concrete, each company case underwent a unique path to design and establish a B2B innovation platform according to the company's strategy, financial resources, business model, and internal capabilities. The resulting heterogeneity in choices and decisions made by the case companies provides a rich picture of strategic options for designing a B2B innovation platform (Hess et al., 2016). The subsequently implemented strategies further showcase a wide-ranging range of possible solutions to navigate the challenges and obstacles of designing a B2B innovation platform with a real-world proven track record.

After deliberately investigating these three cases, we aggregated and enriched the managerial decisions

Table 1. Overview of the three case companies

		FactoryInc	MedicineInc	SecurityInc
Incumbent case company	Industry	Industrial technology	Engineering and technology	Building technology
	Size	> 33.000 employees	> 200.000 employees	> 34.000 employees
	Revenue	> \$6 billion (2022)	> \$50 billion (2022)	> \$7 billion (2022)
B2B innovation platform	Platform	Automation platform	Medical test platform	Security platform
	Size	> 400 employees	> 200 employees	> 100 employees
	Founded	2017	2015	2018
	Traction	> 70 partners > 60 complements (apps)	> Not publicly announced > 10 complements (tests)	> 50 partners > 100 complements (apps)
	Revenue	Not publicly announced	Not publicly announced	Not publicly announced
	Ownership	Corporate entity	Separated entity	Own entity with new brand

made and derived strategic options and possible solutions executives and managers embark on when designing a B2B innovation platform. We grouped these strategic options and the possible solutions within three archetypical platform-related dimensions: *innovation platform core*, *innovation platform complements*, and *innovation platform ecosystem* (Adner, 2021; Cusumano, 2008; Eisenmann et al., 2011; Ozalp et al., 2018; Stonig et al., 2022).

Thereby, we highlight the specific strategic questions company executives and managers must ask themselves when designing a B2B innovation platform. Respectively, we showcase possible solutions that can guideline managerial actions for real-world implementation (Hess et al., 2016).

We derived these possible solutions twofold. First, we built upon the longitudinal case data incorporating each case's management decisions and best practices. Second, we leverage insights from our extensive interviews, discussions, and workshops with C-level executives and managers, deriving viable options for answering these strategic questions. Collectively, these inquiries encompass diversified strategic options for designing B2B innovation platforms. Further details on our research methodology are presented in the appendix. We provide a compact overview of all derived strategic options and possible solutions for designing a B2B innovation platform in Table 2 below.

4.1 Strategic options at the innovation platform core

Inherent in the very nature of innovation platforms lies the development of a 'core' functionality that third parties innovate upon (Cusumano, 2008; Eisenmann et al., 2011; Gawer, 2011). The innovation platform core fundamentally impacts essential platform-related mechanisms like network effects, size of the installed

user base, or complement existence (Cusumano, 2008; Tiwana et al., 2010). Thus, it is crucial for an incumbent company designing a B2B innovation platform to address evolving questions surrounding the innovation platform core deliberately. This dimension consequently requires company executives and managers to proactively evaluate strategic options for developing and distributing the innovation platform core.

Question 1: How much access do you grant third parties to your platform core? Granting access to the platform core might appear to be a binary managerial decision (i.e., open or closed). However, our cases revealed that the strategic options underlying this oversimplification, in reality, are much more complex.

In essence, companies must deliberately evaluate whether the platform core (e.g., the codebase of a software platform) can be accessed or even modified by third parties (Casadesus-Masanell & Llanes, 2015; O'Mahony & Karp, 2022; West, 2003). Opening or closing the platform core involves the strategic balancing of protecting the invested resources within the platform core by limiting access (closed platform core) versus incentivizing complementors to contribute their resources by granting access (open platform core) (Cusumano, 2008). Closing the platform core, on the one hand, gives the platform owner complete control over the core, but on the other hand, mandates profound technical expertise, which might not be available in an incumbent separated business.

The MedicineInc case particularly showcases the strategic relevance of this tension. MedicineInc settled on the strategic imperative to close the platform core in order to retain modifications. The medium-sized company, thus, seldomly invested extensively in developing a solid platform core (i.e., transferring incumbent patents and human capital). The investment into developing a solid platform core exposed

Table 2. Strategic options and possible solutions for designing a B2B innovation platform

Dimension	Strategic option	Possible solutions				Associated references
Innovation platform core	1. Development	Open	Closed	Hybrid		Casadesus-Masanell & Llanes, 2015; Cusumano, 2008; Eisenmann et al., 2011; O'Mahony & Karp, 2022; Tiwana et al., 2010; West, 2003
	2. Homing	Single-tenant		Multi-tenant		Caillaud & Jullien, 2003; Cennamo et al., 2018; Gawer, 2021; Hein et al., 2020; Koh & Fichman, 2014
Innovation platform complements	3. Development	Integrated	Tight coupling		Loose coupling	Cennamo et al., 2018; Constantinides et al., 2018; Gawer, 2021; Hein et al., 2020; Karhu et al., 2020; Marheine & Pauli, 2020
	4. Quality	Implicit policy enforcement	Explicit policy enforcement	Certificate of compliance	Certificate of techn. excellence	Hein, Weking, et al., 2019; Huber et al., 2017; Tiwana, 2013; Tiwana et al., 2010; Wareham et al., 2014
	5. Distribution	Centralized	Decentralized		Hybrid	Cusumano et al., 2019; Dattée et al., 2018; Kotler & Keller, 2006; Tiwana, 2013
Innovation platform ecosystem	6. Ownership	Incumbent entity	Separate entity	Own entity with new brand	Consortium	Dattée et al., 2018; Garud et al., 2002; Gawer & Phillips, 2013; Stonig et al., 2022
	7. Positioning	Original equipment manufacturer (OEM)		Tier 1 supplier (T1S)	Tier 2 supplier (T2S)	Adner, 2017; Bashuri & Bailetti, 2021; Hein, Weking, et al., 2019; Hendricks & Matthyssens, 2023; Jacobides, 2022

MedicineInc to significant economic risk as business-critical resources (e.g., financial and human capital) were bound, potentially to be depreciated in case of platform failure.

Vice-versa, fully opening the platform core also incorporates significant challenges company executives and managers must consider. While an open platform core, in theory, may attract more third-party developers due to its openness to modification, our cases highlight that the prerequisite domain expertise and capabilities limit the number of third-party developers drastically. Yet, the FactoryInc case revealed their customers' perspective that an open platform core appears to be significantly more attractive as its customers do not enter a vendor lock-in when building upon a closed proprietary core.

However, opening the platform core makes monetization more difficult (Toppenberg et al., 2016). The design choice of SecurityInc highlights a third viable strategic option for designing the innovation platform core, namely a hybrid innovation platform core. Integrating modifiable parts of a well-known operating system (e.g., Android) or open-source elements (e.g., Linux kernel) increases third-party

developer modification possibilities. Hence, deliberately opening parts of the platform core by leveraging known programming languages or existing code may accelerate the distribution of the platform core. Further, by developing a hybrid platform core, the platform owner can still protect critical and proprietary core functionalities. However, SecurityInc also highlighted that the inherent complexity of combining open and closed aspects requires extensive and expensive expert knowledge in software development.

Intuitively, accelerating the distribution of the platform core appears desirable from an executive or managerial perspective. However, the decision might also lead to cannibalizing sales of existing products, previously contributing major parts of the company's revenue.

Question 2: On which fundamental basis such as hardware is the platform core able to run? Regardless of the chosen implementation of the innovation platform core, company executives and managers must decide on 'homing' their B2B innovation platform. The question of 'homing' resolves whether the platform core runs exclusively on the hardware of a single or multiple independent tenants.

Hence, executives and managers must deliberately weigh the pros and cons of single-tenant or multi-tenant homing, as the following case examples illustrate. As previously described, FactoryInc early on implemented a closed software platform core distributing it exclusively on their own physical hardware (single-tenant). Exclusively homing the platform core on FactoryInc's hardware also contributed to an increasing hardware standalone value.

Counterintuitively, as introduced, FactoryInc just recently reevaluated their strategic options and subsequently repositioned to be multi-tenant, licensing the platform core to third parties so that it can run on third party proprietary hardware. Aiming to attack the industry leader by distributing their innovation platform core more aggressively, FactoryInc underwent massive reconfigurations to make the initially closed platform core multi-tenant compatible, ultimately requiring very significant investments. In the face of the necessary investments, company executives and managers should early on consider their strategic goals and design their innovation platform carefully. Further, company executives and managers must also pay attention to possible dependencies. For instance, multi-homing a B2B innovation platform without at least partly opening the platform core might not attract customers due to significant vendor lock-in.

4.2 Strategic options for innovation platform complements

An innovation platform's value to its customers is fundamentally impacted by the availability of high-quality platform complements (i.e., applications or tests for our cases) (Gawer & Cusumano, 2014; Rochet & Tirole, 2003). Hereby, often well-known examples from B2C, such as iPhone apps in the Apple App Store distort company executives' and managers' expectations of complement availability on B2B innovation platforms.

As our three case companies showcase, engaging and managing hundreds of thousands of external complements does not reflect reality. Nevertheless, company executives and managers must create an understanding and resolve the strategic imperative surrounding platform complement availability. This dimension promotes awareness of appropriate mechanisms to cope with platform complements' provision, quality management, and distribution.

Question 3: What type of platform complements does the platform owner enable? As introduced, all three company cases showcase a low number of complements on their platform compared to better-known B2C innovation platforms (e.g., Apple iOS). Our company cases emphasize underlying reasons for this. Altogether, a prerequisite for developing B2B platform

complements is well-grounded industry expertise which ultimately limits the segment of third parties potentially contributing innovation platform complements.

Consequently, a well-known strategy to provide platform complements (i.e., solving the chicken-and-egg problem) is the provision of own (integrated) complements (Caillaud & Jullien, 2003; Rochet & Tirole, 2003). FactoryInc adheres to this strategy even as it has matured its innovation platform. Thus, it provides high-quality applications which seemingly functionally integrate into their innovation platform.

A drawback of providing integrated platform complements however is, that it requires significant development investments (i.e., coding/programming capabilities), which come at the cost of having fewer resources available for the development of the innovation platform itself. Nonetheless, exceeding our three cases, providing integrated platform complements, especially in the early phases of the innovation platform, established as a best-practice strategy to attract customers (Staub et al., 2021).

MedicineInc, for instance, faced this challenge and deliberately decided against the strategic option of developing its own integrated complements as this stretches too far from its core business. Moreover, developing complements in the form of medical tests requires profound medical and biological expertise as well as designated equipment (e.g., pure biological reagents). Recognizing this bottleneck, MedicineInc, consequently, evaluated diverse incentive mechanisms to facilitate complement development (e.g., provision of standardized test development kits, monetary incentives, assumption of development expenditures) to increase the number of complements available. Lately, MedicineInc resolved the initial obstacles of platform complement provision by venturing into partnerships with pharmaceutical and biological companies. These partnerships come with regular exchanges and shared development costs promoting tightly coupled platform complement provision.

Finally, the third identified strategic option promotes loosely coupled complement provision. This often aligns with executives' and managers' stereotypical assumptions known from B2C platforms that third parties provide platform complements without involvement of the platform company itself. Per default, loosely coupled complement provision is ultimately dependent on the inherent complexity of the innovation platform itself. The case of MedicineInc showcases the merits of inherent platform complexity as the development of complements (i.e., medical tests), for instance, requires special laboratory equipment. Nevertheless, FactoryInc and SecurityInc both leverage third-party developers fruitfully, enabling them with development kits (i.e., SDKs), interfaces (i.e., APIs),

and open system configurations (e.g., SecurityInc builds its innovation platform on well-known Android). As a result, both cases managed to attract over 50 loosely coupled third-party complements to their innovation platforms.

However, SecurityInc's case highlights certain challenges in the face of complement quality that arise adjacent to an increasing number of loosely coupled platform complements. The following section consequently resolves around the strategic imperative underlying platform complement quality.

Question 4: How much effort is the platform owner willing to invest to ensure high-quality platform complements? Ensuring high quality platform complements that ultimately solve customer problems yet is another key task of a B2B innovation platform. As a result, company executives and managers must deliberately decide on efforts the company is willing to invest ensuring this.

Our cases highlight implicit policy enforcement as one strategic option to ensure platform complement quality. We identified implicit policy enforcement as the provision of development and implementation guidelines and mandatory adherence to general data protection standards and regulations without signing explicit contracts. However, even though all case companies adhere to implicit policy enforcement by promoting specific complement and complementor policies on their websites, they implement other quality-ensuring mechanisms.

Further quality-ensuring mechanisms involve explicit quality enforcement so that each complementor must actively agree to uphold certain platform standards. Hence, the complementor is held legally responsible upon disobeying the set standards. However, solely leveraging implicit and explicit policy enforcement, SecurityInc, very early stage, ran into issues resulting from poor complement quality.

MedicineInc and FactoryInc explicitly certify each complement's compliance according to specifically developed internal guidelines. In fact, they leverage their own brand name to ensure and further promote the quality of the respective complements. MedicineInc even amplified this certification as the company recognized their customers' demand for certification of the complementors' technical excellence (e.g., quality of production processes) altogether.

While both cases, certification of compliance and certification of technical excellence, intuitively seem to be well-reasoned decisions and logical choices from a managerial perspective, the underlying operational efforts showcase certain drawbacks. FactoryInc and MedicineInc both highlighted significant time and resource-consuming organizational efforts involved in communicating with the complementor and spotlighting

the complement. At the same time, the complementor must be willing to open Pandora's box and selectively grant the platform provider access to the complements source code or agree to further testing. MedicineInc, for instance, additionally audits complementor facilities and business processes to certify their technical excellence.

Recognizably certification of compliance and certification of technical excellence prevent certain complementors to conduct business on the innovation platform altogether. However, the upside potential for both, the innovation platform provider as well as the complementor can make these efforts worthwhile. Our cases revealed that certificates significantly increase the chance of customers leveraging the platform and the complement, thus counteracting general mistrust in B2B business. Furthermore, B2B business typically involves higher upfront investments potentially hindering platform complement provision. Yet, at the same time, it also attributes more steady and higher revenues which can be leveraged upon successful certification.

Question 5: How are the platform complements made available to platform users? Making high-quality platform complements effortlessly accessible to customers highlights another fundamental strategic option company executives and managers must consider when designing a B2B innovation platform.

Hereby, predominantly centrally organized complement distribution (e.g., via an application store) established in practice. Again, when designing a B2B innovation platform that leverages physical products such as MedicineInc, the centralized approach needs to be further scrutinized prior to strategy implementation. The cases of FactoryInc and SecurityInc further revealed that implementing review and rating sections as well as comparison visualizations to be well-received best practices for the design of the centralized channel.

Vice-versa, a decentralized approach, i.e., accessing platform complements without direct interaction with the platform owner (e.g., via internet sideloading or complement distribution via distribution partners) also reflects a viable strategic option for the design of a B2B innovation platform. MedicineInc, for instance, implemented decentralized platform complement distribution via selected distribution partners successfully leveraging eventual historically established connections and better customer access.

Lastly, combining both worlds, FactoryInc implemented a hybrid channel. Thus, customers can access platform complements (i.e., apps) from FactoryInc's app store, but also sideload apps from other sources (e.g., internet download or specialized software vendors), without direct interaction with FactoryInc. Sideloading, hereby, might increase the availability of complements accessible for customers while mitigating

the risk of granting customers access to low quality complements which may reflect upon the innovation platform altogether.

In essence, all three case companies emphasized the vital importance of a high-quality distribution channel to promote trust towards their B2B customers.

4.3 Strategic options for the innovation platform ecosystem

Both worlds, academic research and real-world business, recognize platform business to fundamentally differ from traditional pipeline business (Cusumano et al., 2019; Essen et al., 2023; Van Alstynne et al., 2016). For instance, established business roles (e.g., suppliers) become less pronounced, and new roles with distinctive characteristics (e.g., complementors) emerge. To capture this dynamic, the term ecosystem has established (Adner, 2017; Jacobides et al., 2018). Ecosystems consequently emphasize joint value creation based on the structural alignment of multiple partners (Adner, 2017).

Insights from our three case companies showcase the importance of apprehending these new roles and collaboration mechanisms to establish a B2B innovation platform successfully. Our company cases highlight the importance of the strategic positioning of the B2B innovation platform as an organizational entity as well as its positioning within the industry. This dimension consequently requires company executives and managers to proactively evaluate ownership options and strategic positioning of the B2B innovation platform.

Question 6: How is the ownership of the innovation platform legally institutionalized? Organizing and structuring innovation within a corporate company poses significant challenges to company executives and managers (Christensen, 2013; Hamel, 2006). Over several decades, many scholars investigated corporate behavior to derive best practices and norm strategies. Hereby, the predominant eminent recommendation is the legal detachment of innovation endeavors separated from the corporate organization (Dattée et al., 2018; Gawer & Phillips, 2013; Stonig et al., 2022).

Our case sample also reflects this notion. Two of the three case companies we investigated (i.e., MedicineInc and SecurityInc) are legally separated from the incumbent company, attributing several advantages. First, our cases revealed that especially large incumbent organizations might face obstacles from anti-trust authorities when they introduce platform businesses. Thus, legally separating the platform business while maintaining ownership increases flexibility (e.g., to sell parts or even the whole platform business) in case of anti-trust interventions. Second, legally separating the

platform business creates sufficient distance from the incumbent's established processes and norms, which eventually hinder innovative actions necessary for successfully establishing a B2B innovation platform.

Furthermore, all three cases revealed significant mistrust and fear of competition within the case companies' industries. Thus, a strict legal separation of the innovation platform from the incumbent lowers the barriers for others to join the innovation platform ecosystem (e.g., as a complementor providing complements). Consequently, on the other hand, the incumbent must legally ensure an ownership structure that prevents reintegrating the innovation platform upon being successful. This fundamentally hardens the transfer of employees and their essential domain knowledge from the incumbent to the separated entity. Moreover, employees of the incumbent willing to join the separated entity might have to commit to new employment contracts potentially losing existing benefits (e.g., pension entitlements, health insurance, childcare services) to work at the innovation platform, which makes the seemingly easy legal separation significantly challenging in reality.

FactoryInc promotes another viable strategic option that facilitates essential domain knowledge transfer by enabling the B2B innovation platform as an integrated corporate entity. However, this ownership structure comes with the earlier-mentioned disadvantages.

The ownership decision is accompanied by the possibility of creating a new brand for the innovation platform. SecurityInc, for instance, was introduced as a new brand showcasing almost no connection to the incumbent's core business. MedicineInc's case, on the contrary, highlights the strategic option to separate the B2B innovation platform as a independent entity under the incumbent's brand name. Thus, MedicineInc benefits from the incumbent's brand which promotes trust and manufacturing excellence to ease market access and establish customer trust in the newly entered medicine industry.

Lastly, another strategic option apart from legally separating the B2B innovation platform to address the previously mentioned challenges (i.e., overcoming industry mistrust) is to legally structure the ownership as a consortium of multiple (industry) partners. Neither of the three investigated cases choose this strategic option. Still, prominent industry examples such as the Star Alliance in the aviation industry promote the viability of this strategic option.

Question 7: Which value proposition does the innovation platform offer and how is it positioned within the industry? As introduced in the theoretical background, research distinguishes between two different types of platforms (i.e., transaction and innovation) (Cusumano et al., 2019; Foerderer et al.,

2019; Gawer, 2021). Although all three case companies can be characterized as B2B innovation platforms (Adner, 2021; Cusumano et al., 2019; Gawer & Cusumano, 2014; Jacobides, 2022), their specific position within the industry's value architecture differs (Adner, 2021).

Analyzing our three cases, it became clear that the specific value propositions of each B2B innovation platform depends on its positioning within the industry. Following established industry terms, the value proposition of B2B innovation platforms can be compared to that of an original equipment manufacturer (OEM), a tier 1 supplier (T1S), and a tier 2 supplier (T2S). MedicineInc, for instance, developed its B2B innovation platform for molecular testing (i.e., test devices and medical tests) and offers it to end customers. Thus, MedicineInc engages as an OEM.

FactoryInc's innovation platform, on the contrary, is always part of a larger solution (e.g., an assembly line). Thus, the case company does not operate as an OEM. Rather, they act as a T1S. Furthermore, as they leverage the possibility of multi-homing providing their platform core to other automation providers, FactoryInc also acts as a T2S.

Lastly, SecurityInc promotes the value proposition of a T1S. It does not provide own hardware (i.e., cameras), thus it does not engage as an OEM. Instead, the case company partnered with several industry players to enhance complement development (i.e., apps), which can be installed on third party hardware (i.e., cameras and security systems) via SecurityInc's app store.

Altogether, the cases showcase that B2B innovation platforms may follow multiple roles simultaneously (for instance T1S and T2S). This notion enriches strategic management literature of focusing the company's resources toward one focal value proposition (Cennamo & Santalo, 2013; McIntyre & Srinivasan, 2017). Furthermore, as introduced, we identified B2B customers to require holistic and integrated solutions for complex problems, ultimately forcing companies to deliberately partner up and assume multiple roles simultaneously.

To illustrate the variety of strategic options for designing a B2B innovation platform from a real-world perspective, Table 3 in the following provides a compact overview of the decisions made and implemented by the case companies' executives and managers

5. Concluding comments

Creating a B2B innovation platform can be daunting for company executives and managers, as it involves significant challenges and obstacles prior to

realizing eventual benefits orchestrating an emerging ecosystem. These obstacles require competencies and strategic clarity that often fundamentally differ from those needed for the incumbent's core business.

To help company executives and managers navigate these challenges and obstacles, our research presents seven strategic options and potential solutions for designing B2B innovation platforms in a more systematic manner. We also highlight key questions that company executives and managers should ask themselves when designing such a platform, focusing on three core dimensions: the innovation platform core, innovation platform complements, and the innovation platform ecosystem.

Our research builds upon previous studies on B2B innovation platforms and draws insights from three incumbent cases that successfully designed and established a B2B innovation platform. We provide key guidelines that foster company executives and managers to design their own B2B innovation platform while considering their unique industry and context. This structural approach simplifies the complexity of building a B2B innovation platform from scratch.

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7. Appendix: Research methodology

Our research draws on multiple rounds of interviews, discussions, and workshops with C-level executives, managers, and industry experts from the three case companies that successfully designed and established a B2B innovation platform. Table 4 provides an overview of our data collection. During the data analysis, we deliberately retrieved commonalities, differences, challenges and obstacles the case companies faced when designing their B2B innovation platform. Although this primary data enabled a rich picture of strategic options for practitioners, we further incorporated secondary data, such as financial statements, websites, internal documents, and company presentations. Thus, we were able to, on the one hand, verify the identified strategic options derived from the interviews, workshops, and discussions. On the other hand, we eventually closed gaps to ensure a holistic perspective on strategic options and possible solutions for designing B2B innovation platforms.

We started our data collection process in January 2021. Consequently, we conducted regular exchanges in the form of interviews, workshops, and discussions with

Table 3. Overview of strategic options and case companies' solution implementation

Dimension	Strategic option	FactoryInc	MedicineInc	SecurityInc
Innovation platform core	1. Implementation	Closed core	Closed core	Hybrid core
	2. Distribution	Multi-tenant	Single-tenant	Multi-tenant
Innovation platform complements	3. Provision	Integrated, tight coupling, loose coupling	Tight coupling	Loose coupling
	4. Quality	Certificate of compliance	Certificate of technical excellence	Explicit policy enforcement
	5. Distribution	Hybrid	Decentralized	Centralized
Innovation platform ecosystem	6. Ownership	Incumbent entity	Separated entity	Own entity with new brand
	7. Positioning	T1S & T2S	OEM	T1S

each case company periodically every three to six months. The interviews included open-ended questions on current developments and challenges of the case company's B2B innovation platform. The workshops mediated the innovation platforms' strategic positioning, which focused on partner management and incentivization for participation. The discussions involved informal exchanges within workshop breaks and irregular online meetings on emerging issues. The previously listed interviews, workshops, and discussions with the three case companies represent the core basis for our analysis, subsequent conceptualization of strategic options, and possible solutions.

Table 4. Overview data collection

FactoryInc	MedicineInc	SecurityInc
5 interviews	34 interviews	4 interviews
3 workshops	3 workshops	2 workshops
700 min of discussion	1860 min of discussion	540 min of discussion
June 2022 to May 2023	January 2021 to May 2023	October 2021 to April 2023

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